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FIFTH BI-MONTHLY PROGRESS REPORT
UNIVERSITY OF ALASKA
ERTS PROJECT 110-5
May 31, 1973

E7.3 106.1.2
CR-132030

A. TITLE OF INVESTIGATION

Break-up Characteristics of Chena River Basin

B. PRINCIPAL INVESTIGATOR / GSFC ID: U596

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C. PROBLEMS IMPEDING INVESTIGATION

No photos have as yet been received for the main break-up period.
Furthermore, the color display unit (CDU) which has been purchased under
ERTS Project 110-1 is still not in operational condition.

D. PROGRESS REPORT

1. Accomplishments during reporting period

ERTS imagery has been received from the dates Feb. 19, 1973;
Mar. 11, 1973; and Apr. 11, 1973. This material will be used as
background data, to monitor the break up of the snow cover in the
Chena and Caribou - Poker Creek watershed. On May 11 aerial stereo
photography from an altitude of 10,000 feet was flown for two passes
in Poker and Caribou watershed, and on May 20, at the time of the
satellite pass, for the upper areas of the Chena Basin, to obtain
ground truth measurements. The Bausch and Lomb transfer scope
which is on loan to the University of Alaska for a limited time,
was used to transfer altitude lines onto the photographs. Four
classes of cover were distinguished: a) bare ground; b) snow
patches (snow cover < 50%); c) broken snow cover (50-90%); and
d) snow cover (>90%).

(E73-10619) BREAK-UP CHARACTERISTICS OF
CHENA RIVER BASIN Bi-monthly Progress
Report (Alaska Univ., Fairbanks.) 4 p
HC \$3.00 CSCL 08H
G3/13 00619 Unclas

The snow melt is being evaluated in relation to altitude and exposure. Climatological data were continued to be collected.

2. Plans for Next Reporting Period

Project personnel will evaluate the ERTS material for the main break up period, May 1 and May 20, upon receipt. These data will be compared with the ground truth measurements from the aerial photography. Climatological, snow and run-off data will continue to be collected. The dependence of the rate of melting on exposure and altitude will be investigated. As soon as the CDU is installed, personnel will acquaint themselves with the capabilities of this equipment.

E. SIGNIFICANT RESULTS: (See separate page)

F. PUBLICATIONS

None

G. RECOMMENDATIONS

None

H. REVISED STANDING ORDERS

None

I. ERTS IMAGE DESCRIPTORS FORM: (See separate page)

J. DATA REQUESTS

None

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DISCIPLINE

Hydrology

SUBDISCIPLINE

Meteorology

SUMMARY OF SIGNIFICANT RESULTS

Utilization of the Zoom transfer scope enabled the plotting of the snow conditions on topographical maps and the transferring of the contour lines onto the aerial photographs, so that the snow conditions could be studied for dependence on altitude and exposure.

(See Instructions on Back)

ORGANIZATION University of Alaska Inst. of Water Resources

ID _____

PRODUCT ID (INCLUDE BAND AND PRODUCT)	FREQUENTLY USED DESCRIPTORS*			Clouds	DESCRIPTORS
	Rivers	Mtns.	Valleys		
1211-20504	x	x	x		Thin layer of cloud
1231-21021	x	x	x		Mostly cloud covered
1247-20511	x	x	x		None
1262-20340	x	x	x		None

*FOR DESCRIPTORS WHICH WILL OCCUR FREQUENTLY, WRITE THE DESCRIPTOR TERMS IN THESE COLUMN HEADING SPACES NOW AND USE A CHECK (✓) MARK IN THE APPROPRIATE PRODUCT ID LINES. (FOR OTHER DESCRIPTORS, WRITE THE TERM UNDER THE DESCRIPTORS COLUMN).

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